ICD-10-PCS Root Operation Groups, Part 4

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By Ann Zeisset, RHIT, CCS, CCS-P

Root Operations That Always Involve a Device, Involve Examination Only, or Define Other Objectives

The medical and surgical procedure section of ICD-10-PCS contains most (but not all) procedures typically coded and reported in the hospital inpatient setting. There are 31 root operations in this section. The root operations are arranged into nine groups that share similar attributes.

This article is the fourth in a series explaining ICD-10-PCS root operation groupings in this section. It focuses on three of these groups: root operations that always involve a device; root operations involving examination only; and root operations that define other objectives.

Root Operations That Always Involve a Device

This group of operations includes:

- Insertion
- Replacement
- Supplement
- Change
- Removal
- Revision

Insertion-Root Operation H

Insertion is defined as putting in a nonbiological appliance that monitors, assists, performs, or prevents a physiological function but does not physically take the place of a body part.

The insertion root operation represents those procedures where the sole objective is to put in a device without doing anything else to a body part. Procedures typical of those coded to insertion include putting in a vascular catheter, a pacemaker lead, or a tissue expander.

Examples of insertion procedures include insertion of a radioactive implant, insertion of a central venous catheter, placement of a dual chamber pacemaker, placement of a bone growth stimulator, and port-A-cath placement.

Replacement-Root Operation R

Replacement is defined as putting in or on biological or synthetic material that physically takes the place and/or function of all or a portion of a body part. A body part may be taken out and/or replaced, physically eradicated, or rendered nonfunctional during the procedure. A removal procedure is coded for taking out the device used in a previous replacement procedure.

The objective of procedures coded to the replacement root operation is to put in a device that takes the place of some or all of a body part. Replacement encompasses a wide range of procedures, from joint replacements to grafts of all kinds. The replacement root operation includes taking out the body part.

Examples of replacement procedures include total hip replacement, bone graft, free skin graft, phacoemulsification with IOL implant, aortic valve replacement, and total right knee arthroplasty with prosthesis.

Supplement-Root Operation U

Supplement is defined as putting in or on biologic or synthetic material that physically reinforces and/or augments the function of a portion of a body part. The biological material can be nonliving or living from the same individual.

The body part may have been previously replaced and the supplement procedure performed to physically reinforce and/or augment the function of the replaced body part.

The objective of procedures coded to the supplement root operation is to put in a device that reinforces or augments the functions of some or all of a body part. The body part may have been taken out during a previous procedure but is not taken out as part of the supplement procedure. Supplement includes a wide range of procedures, from hernia repairs using mesh reinforcement to heart valve annuloplasties and grafts such as nerve grafts that supplement but do not physically take the place of the existing body part.

Examples of supplement procedures include herniorrhaphy using mesh, free nerve graft, mitral valve ring annuloplasty, putting in a new acetabular liner in a previous hip replacement, abdominal wall herniorrhaphy using mesh, and colporrhaphy with mesh reinforcement.

Change-Root Operation 2

Change is defined as taking out or off a device from a body part and putting back an identical or similar device in or on the same body part without cutting or puncturing the skin or a mucous membrane. All change procedures are coded using the external approach.

The change root operation represents only those procedures where a similar device is exchanged without making a new incision or puncture. Typical change procedures include exchange of drainage devices and feeding devices. In the change root operation, general body part values are used when the specific body part value is not in the table.

Examples of change procedures include urinary catheter change, gastrostomy tube change, tracheostomy tube exchange, chest tube exchange, drainage tube change, and exchange of cerebral ventriculostomy drainage tube.

Removal-Root Operation P

Removal is defined as taking out or off a device from a body part. If the device is taken out and a similar device is put in without cutting or puncturing the skin or mucous membrane, the procedure is coded to the change root operation. Otherwise, the procedure for taking out the device is coded to removal.

Removal represents a broader range of procedures than those for removing devices contained in the insertion root operation. A procedure to remove a device is coded to removal if it is not an integral part of another root operation and regardless of the approach or the original root operation by which the device was put in. In the removal root operation, general body part values are used when the specific body part value is not in the table.

Examples of removal procedures include drainage tube removal, cardiac pacemaker removal, central line removal, endotracheal tube removal, removal of external fixator, and removal of PEG tube.

Revision-Root Operation W

Revision is defined as correcting, to the extent possible, a malfunctioning or displaced device. Revision can include correcting a malfunctioning device by taking out and/or putting in part of the device.

Revision is coded when the objective of the procedure is to correct the positioning or function of a previously placed device, without taking the entire device out and putting a whole new device in its place. A complete re-do of the original root operation

is coded to the root operation performed.

Examples of revision procedures include adjustment of pacemaker lead, adjustment or revision of hip prosthesis, revision of pacemaker insertion, and reposition of Swan-Ganz catheter.

Root Operations Involving Examination Only

This group of operations includes:

- Inspection
- Map

Inspection-Root Operation J

Inspection is defined as visually and/or manually exploring a body part. Visual exploration may be performed with or without optical instrumentation. Manual exploration may be performed directly or through intervening body layers.

The inspection root operation represents procedures where the sole objective is to examine a body part. Procedures that are discontinued without any other root operation being performed are also coded to inspection.

Examples of inspection procedures include diagnostic arthroscopy, exploratory laparotomy, diagnostic cystoscopy, diagnostic laryngoscopy, digital rectal exam, and laparotomy with palpation of liver.

Map-Root Operation K

Mapping is defined as locating the route of passage of electrical impulses and/or locating functional areas in a body part. This root operation is applicable only to the cardiac conduction mechanism and the central nervous system.

Mapping represents a very narrow range of procedures. Procedures include only cardiac mapping and cortical mapping. The only two body systems under the map root operation are the central nervous system (00K) and heart and great vessels (02K).

Examples of mapping procedures include cardiac mapping, cortical mapping, cardiac electrophysiological study, and intraoperative cardiac mapping during open heart surgery.

Root Operations That Define Other Objectives

This group of operations includes:

- Fusion
- Alteration
- Creation

Fusion-Root Operation G

Fusion is defined as joining together portions of an articular body part, rendering the articular body part immobile. The body part is joined together by fixation device, bone graft, or other means.

A limited range of procedures is represented in the fusion root operation, because fusion procedures are by definition performed only on joints. Qualifier values are used to specify whether a vertebral joint fusion uses an anterior or posterior approach and whether the anterior or posterior column of the spine is fused.

Examples of fusion procedures include spinal fusion, ankle arthrodesis, intercarpal fusion of hand with bone graft, and interphalangeal fusion of great toe with percutaneous pin fixation.

Alteration-Root Operation 0

Alteration is defined as modifying the natural anatomic structure of a body part without affecting the function of the body part. The principal purpose is to improve appearance.

Alteration is coded for all procedures performed solely to improve appearance. All methods, approaches, and devices used for the objective of improving appearance are coded here.

Because some surgical procedures can be performed for either medical or cosmetic purposes, coding for alteration requires diagnostic confirmation that the surgery is in fact performed to improve appearance. If the procedure is done for medical conditions, then the appropriate root operation is assigned such as extraction, reposition, resection, repair, or replacement.

Examples of alteration procedures include cosmetic face lift, breast augmentation, abdominoplasty, and liposuction.

Creation-Root Operation 4

Creation is defined as making a new genital structure that does not physically take the place of a body part and is used only for sex change operations.

Creation is used to represent a very narrow range of procedures. Only procedures performed for sex change operations are included here. If a separate procedure is performed to harvest autograft tissue, it is coded to the appropriate root operation in addition to the primary procedure.

Examples of creation procedures include creation of vagina in a male and creation of penis in a female.

References

Centers for Medicare and Medicaid Services (CMS). "2010 ICD-10-PCS Code Tables and Index." Available online at www.cms.hhs.gov/ICD10.

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Ann Zeisset (ann.zeisset@ahima.org) is a professional practice manager at AHIMA.

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